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ABSTRACT

This report presents data obtained from a survey conducted during the summer of 1970 in which private U.S. colleges and universities were asked to report on past and projected enrollment patterns for every year from 1965-66 through 1971-72. The various categories covered in the survey included freshman applications, freshman admissions, freshman head-count enrollment, total undergraduate head-count enrollment, total graduate head-count enrollment, total full-time equivalent undergraduate enrollment, and total full-time equivalent graduate enrollment. Findings generally show that enrollment has been decreasing in the last several years. Most of the participating institutions had predicted a rise in enrollment for 1970-71; however, a follow-up survey indicates that these predictions were wrong and that yet another decrease actually occurred. This constant decrease in enrollment is not only affecting institutional size but also the financial situation of the colleges. If private colleges and universities are to survive, they need to incorporate better studies, aggressive admissions programs and, above all, attractive academic programs into their regular college functions. (HS)

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THE NUMBERS GAME

A Study of Enrollment Patterns In Private Colleges and Universities

by

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The Roundup of Enrollment Data

In the early summer of 1970 the institutions in our study were asked to report on past and projected enrollment patterns. We sought to obtain information for every year from 1965-66 through 1971-72 on freshman applications, freshman admissions, freshman head count enrollment, total undergraduate head count enrollment, total graduate head count enrollment, total full time equivalent undergraduate enrollment and total full time equivalent graduate enrollment. This was a formidable request for an enormous amount of data. It took a lot longer to fill out than it takes the reader to look over the list. Not surprisingly, some of our respondents quailed before the task. What is surprising is the very substantial number that were able to supply us with all of these data.

It is also interesting to note the points at which the largest number of willing but unable respondents fail. Freshman applications and freshman admissions are not, apparently, such generally accepted categories that all colleges and universities maintain careful and easily accessible records on them. Seventy-two institutions (thirteen per cent) were unable to supply us with data on their freshman applications in 1965-66 and 81 institutions (fifteen per cent) were unable to tell us how many freshman applicants they granted admission in that year. Only 29 institutions (five per cent) were unable to supply us with freshman head count enrollment for 1965-66 and less than three per cent failed to supply total head count and total full time equivalent data for that year. The data were better for 1966-67 but some of that year's data were still too entangled in the cobwebs of history for ten or twelve per cent of our institutions. Although as many as eight or nine per cent of the institutions in some of the remaining years found data on freshmen too much of a nuisance to report, beginning with 1967-68 the responses improved considerably.

Until 1971-72. Eleven per cent declined to project any enrollment data -- not merely freshman data -- for that year. Fourteen per cent declined to speculate on freshman applications and seventeen per cent declined to speculate on freshman admissions. It is fascinating but unproductive to speculate on the reasons for omitting the projected enrollment data for 1971-72. Perhaps some looked into the crystal ball, did not like what they saw and, to avoid giving the image permanency in their minds, did not record it. No doubt most of those declining to answer thought that the shreds of evidence they had were too slender for the projection to these kinds of data.

There are many ways to report these data but none of them, alas, is fully satisfactory. If we reduce all of the figures to a "per reporting institution" basis and develop percentages from that point, we have no control over the nature of the institutions that pop in and out of the data, reporting where they have information and absenting themselves from the statistics when they do not have data. On the other hand, to reduce the data entirely to institutions which were able to respond to all 49 items on enrollment would lower the response rate more than necessary and make a special selection among the total number of institutions about which we could know little and over which we would have no control. Is there, for example, a relationship between the fact that an institution is unable to supply certain data for 1965-66 and its financial condition? Perhaps, but we have no way of knowing.

What we have done, therefore, is to eliminate from any category -- freshman applications, for instance -- institutions unable to supply data for all the years. Because a smaller number of institutions are able to supply data on freshman admissions -- to take another for instance -- we reduce the data to a "per reporting institution" basis when making comparisons between categories. Because this method also includes the possiblity that the data are skewed in hidden ways, comparisons between categories may be more suggestive than precise.

Reluctantly excluding, then, all institutions that failed to supply freshman application data in any year, this is the application picture that emerges for 431 private colleges and universities from 1965-66 through a projected 1971-72.

Freshman Applications

Freshman applications decreased a mild 0.3 per cent in 1966-67 over the previous year and declined again the year following by 1.5 per cent. A minuscule decrease in 1968-69 -- less than one tenth of one per cent -- was followed by a 4.6 increase in 1969-70. This lent courage to private institutions and they projected a 4.6 per cent additional increase in 1970-71 to be followed by a precedent shattering -- for the years covered in this study -- 5.7 per cent projected increase for 1971-72. A cumulative increase, 1965-66 through 1971-72, of 13.6 per cent -- only 2.8 per cent of which had actually been realized at the time the data were reported. The remainder was projected to come in the next two years.

Freshman applications are needed, of course, to produce freshman admissions from which come freshman enrollments, which contribute in turn to total enrollment, and this needs to rise to conform to

the long-range plan and, more importantly, to balance the projected budget -- or at least reduce its imbalance. This is very logical and very hopeful. Logic and hope, however, do not produce increased freshman applications.

In 1967-68, when freshman applications declined 1.5 per cent, private colleges and universities matched this by raising their percentages of admissions 1.6 per cent -- and still suffered a decline in freshman head count enrollment of 1.3 per cent. Total undergraduate head count enrollment -- thanks, apparently, to transfers and better retention -- actually increased by 2.5 per cent.

The zero per cent change in freshman applications in 1968-69 prompted the extension of the strategem employed the previous year. Accordingly, private institutions raised their rate of admissions another 1.6 per cent -- admitting almost sixty per cent of the freshmen who applied. The ploy was not altogether successful, however, for freshman head count enrollment actually increased only 0.4 per cent.

In 1969-70 freshman applications increased 4.6 per cent, the percentage admitted stayed at about sixty (59.7) per cent, and, as an apparent consequence, freshman head count enrollment increased 3.2 per cent. The total undergraduate head count increased 0.7 per cent -- half the amount of increase the previous year.

As respondents looked to the fall of the year in which they responded, they saw a further increase in freshman applications of 4.6 per cent, a slight fall in the rate of admissions to 58.4 per cent, with a net gain in freshman head count enrollment of 2.5 per cent. Total undergraduate head count enrollment as well as total undergraduate full time equivalent enrollment were to increase about one and one half per cent.

As the institutions that responded with predictions looked ahead a year to the fall of 1971, however, they had their eyes more on their budgets than on their recent application-admission-enrollment history.

Freshman applications were projected to rise by 5.7 per cent; the rate of freshman admissions was projected to return to a rate just under that employed in 1968 -- 57.6 per cent; yet freshman head count enrollment was projected to rise by a handsome 4.2 per cent; total undergraduate head count was to rise 2.9 per cent, and total undergraduate full time equivalent enrollment by 2.7 per cent.

For institutions with a cumulative percentage increase of 10.3 per cent in total head count enrollment over the five years of data

covered by the years 1965-66 through 1969-70, a projected rise in 1971-72 of slightly less than three per cent does not seem unreasonable or overly ambitious -- except that over the five years of known data the percentage of increase had declined each succeeding year until in 1970 it was less than one per cent. Like the merchants in Herb Shriner's home town who, anxious for tourist trade, lowered the speed limit to zero and then passed a law against backing up, private colleges seemed to be trying by an act of will to determine that enrollment would rise.

Using data only from institutions able to supply information for all of the years from 1965-66 through 1971-72 eliminates a number of institutions whose ability to predict may be less precise than that of other institutions, partly because of an inadequate history of data. If the data on freshman applications were reported on a "per reporting institution" basis, the figures for the three years beginning 1968-69 would not be substantially different from those reporting above. For projected 1971-72, however, the hoped-for increase would be 7.6 per cent rather than the 5.7 per cent reported above. Institutions with the most inflated expectations regarding future enrollment patterns often appear to be also the ones with inadequate data.

The more discouraging the past data and the more perilous the present situation, the higher the expectations for the future. This is evident when the patterns of institutions by various enrollment groups are compared. The table showing the percentage of increase or decrease in freshman applications from one year to the next is highly revealing.

Institutions in the 2001-4000 head count range appeared to have, collectively, a more realistic view of future freshman applications in the light of their past record than any other group. The expectations of the 4001 and above institutions also seemed relatively sober in the light of previous performance. And the expectations of the group of institutions in the 1001-2000 range, while high, appeared relatively reasonable when compared with institutions in the 501-1000 range -- let alone when compared with those enrolling 500 or less.

For all enrollment groups save one, both 1966-67 and 1967-68 were years in which freshman applications decreased. That one group -- the group of institutions having the largest enrollments -- experienced a mild decline in freshman applications only in 1968-69. No group could afford to take the decline in freshman applications smilingly; but the most severely afflicted were the institutions enrolling 500 students or less. They experienced, successively, a 5.8 per cent decrease and then a further 12.5 per cent decrease.

The fact that the rate of decrease declined the following year to only 1.4 per cent halted what must have seemed like the pull of gravitational acceleration, but it was scant comfort.

However, the following year -- 1969-70 -- was a year of recovery for all five enrollment groups. The group of largest institutions received a much increased number of freshman applications, belying not only the decrease of the year before but the decelerated rate of increase of the year before that. The group of institutions enrolling 2001-4000 students repeated the 2.7 per cent increase of the year before and thereby overcame the losses of the previous two years. The group enrolling 1001-2000 students experienced a handsome increase of five per cent which complemented the 1.5 per cent increase of the year before.

Only two enrollment groups -- those with the smallest enrollments -- did not make sufficient recovery in applications for 1969-70 to exceed the numbers of applications they had received in 1965-66. Those enrolling 501-1000 followed three years of three and four per cent declines by a 2.1 per cent increase in 1969-70, while those enrolling 500 or less received a whopping 8.3 per cent increase. Coupled with the previous heavy losses noted above, however, this still left a net loss over 1965-66 of twelve per cent.

The following two years of data in the table are based on projections submitted by the individual institutions themselves. As already noted, the larger institutions did not let one year of improvement carry them away in their projections. The same does not appear to be true for the smaller institutions.

While no one looking at application data from 1965-66 through 1968-69 would have been likely to predict the 8.3 per cent increase in 1969-70 which institutions in our smallest category actually experienced -- and this lent pause to too ready criticism of their collective expectations -- nevertheless, the prediction of another 8.3 per cent increase to be followed by a 21.5 per cent increase does take one's breath away. Once over Niagra on an innertube is remarkable. To be followed by a repeat performance and this in turn to be capped by a ride down the Victoria Falls seemed incredible.

What these smaller institutions were doing, of course, is less prediction than projection -- projection of budget translated into the enrollment increases that must be achieved if the budget projections are to be met. Percentage changes of considerable magnitude come easy where small numbers are involved. A small college looks ahead and hopes for a few more students. Yet, examined as a percentage and in the light of previous performance, seeking those few additional students becomes a task of very large proportions. As shadows thrown on the wall, these percentages cast a sobering if somewhat exaggerated image over their plans and prospects.

Freshman Applications
Numbers and Percentage of Change for Each Year
Between 1965-66 and 1971-72
by Enrollment Groups

	1-500 (N=23)	501-1000 (N=141)	1001-2000 (N=170)	2001-4000 (N=49)	4001-UP (N=48)	431 Institutions Combined
1965-66	6062	71897	172218	83703	182363	516243
Percentage of Change	-5.8	-2.9	-1.8	-0.7	2.5	-0.3
1966-67	5712	69834	169169	83098	186962	514775
Percentage of Change	-12.5	-3.9	-2.8	-2.6	1.4	-1.5
1967-68	4997	67142	164471	80966	189600	507176
Percentage of Change	-1.4	-3.8	1.5	2.7	-1.2	0.0
1968-69	4927	64598	166997	83154	187332	507008
Percentage of Change	8.3	2.1	5.0	2.7	5.9	4.6
1969-70	5338	65933	175407	85434	198460	530572
Percentage of Change (anticipated)	8.3	6.3	7.9	2.2	2.0	4.6
1970-71 (anticipated)	5780	70100	189186	87332	202471	554869
Percentage of Change (anticipated)	21.5	11.9	6.4	2.9	3.7	5.7
1971-72 (anticipated)	7025	78411	201210	89901	209872	586419

Applications and Applicants

The decline in freshman applications at many private institutions has often been attributed to the alleged fact that each student is filing applications with fewer colleges than his counterpart did formerly. This is a comforting doctrine and in local instances certainly has validity. However, it can be a two-edged sword, cutting in more than one direction. A decline in applications may not represent a decline in applicants; but an increase in applications, by the same token, may not represent an increase in applicants.

A precise applications-to-applicants ratio that will fit neatly into our data does not exist. Both the Educational Testing Service and the American College Testing Program have data on the number of institutions to which tested candidates want their scores sent, but for a whole catalog of reasons these cannot be made to conform to our data with sufficient precision to justify their use. Even small imprecisions can result in large distortions when a ratio of applications per applicant is applied to hundreds of thousands of applications.

However, three of the annual profiles of college freshmen published by the American Council on Education contain information that can be used to speak to this point. Students who were freshmen in the fall of 1967, 1968, and 1969 were asked how many applications they made to other institutions. Their replies, when tallied, ranged from "no other applications" -- i.e., one application -- through "six or more." Counting six -- i.e., seven -- or more as seven, adding the numbers of students and the numbers of applications, and dividing applications by students, we can arrive at an average number of applications per student. By applying this average number of applications per freshman student to the freshman applications which our institutions reported receiving in those years we have some basis for judging whether the percentage changes in applications received are themselves significant or are substantially affected by the numbers of applications freshmen send. One hundred applications might be generated by 25 applicants sending four each. Seventy-five applications received the next year might be a significant 25 per cent drop; or it might be due to the fact that the same number of applicants are sending only three applications apiece -- or that twice as many applicants are averaging one and one-half applications each.

The American Council data with information on three years permit us only two comparisons -- although these three years are very important ones -- and only in a limited way. With these data we can arrive at a single applicant-applications ratio for all private four-year

institutions which appears reasonably trustworthy. Grouping the American Council data into a single private college and university category provides us with a rough ratio of applications to applicants that is useful for analyzing the numbers of applications received by all private institutions in our study.

The freshmen who enrolled in private institutions in the fall of 1967 in the four categories used in the American Council studies -- private four-year nonsectarian, Protestant four-year, Catholic four-year, private university -- collectively averaged 2.60 applications per student. Those who enrolled in the fall of 1968 averaged 2.73 applications each, and those who enrolled in the fall of 1969 averaged 2.69 each.

By applying these ratios to the total number of applications received by our reporting institutions we discover that the zero percentage change in applications between 1967-68 and 1968-69 was actually a 4.8 per cent <u>decrease</u> in numbers of applicants while the 4.6 per cent increase in 1969-70 over 1968-69 was really even better -- a 6.2 per cent increase in the actual number of applicants. This is summarized in the table below.

	Total Applications Received by 431 Private Colleges and Universities	Ratio of Applications to Applicants	Total Number of Applicants	Percentage Change in Applications	Percentage Change in Applicants
1967-68	507,176	2.60	195,068		
				0.0	-4.8
1968-69	507,008	2.73	185,717		
				4.6	6.2
1969-70	530,572	2.69	197,239		

We also have available a breakdown between independent, Roman Catholic, and Protestant institutions as well as a category for private universities. Unfortunately, none of the religious groupings in our study -- independent, Catholic, Protestant -- are limited to four-year institutions. They include "universities" as well. Moreover, American Council data are received from freshmen actually enrolled in an institution identified in one of these three ways. It is by no means certain that if a given freshman submitted two other applications that these were to institutions of the same type. However, these cross-overs may tend to cancel one another. With these caveats in mind these sub-analyses may still offer some illumination on a dark problem.

The applicant-applications ratio has not been the same for these three general "religious" groupings. It has fallen for those institutions independent of church relationship -- although their applicant-applications ratio is still highest; risen for those related to the Roman Catholic Church; and first rose, then fell, for institutions related to Protestant denominations -- whose applicant-applications ratio is lowest.

When these ratios are applied to the numbers of applications these types of institutions received and are compared with percentages of change in numbers of applications received from one year to the next, some striking observations may be made. The percentages comparing applications received in one year with applications received the next understate the increase in actual applicants for independent institutions, understate the severity of the decline for Roman Catholic related institutions in 1968-69 and contradict the slight rise for these institutions in 1969-70; and understate both the decline and the subsequent rise for Protestant related institutions.

The following table depicts these numbers and percentages of change between years.

APPLICATIONS AND APPLICANTS

	Applications Received by Colleges and Universities	Average Number of Applications per Freshman	Derived Actual Number of Applicants	Percentage Change in Applications	Percentage Change in Applicants
INDEPENDENT					
1967-68	242,755	3.2	75,861		
				0.2	6.9
1968-69	243,235	3.0	81,078		
				6.9	10.5
1969-70	259,903	2.9	89,622		
CATHOLIC					
1967-68	108,239	2.2	49,200		
				-0.5	-8.8
1968-69	107,680	2.4	44,867		
				1.3	-2.7
1969-70	109,071	2.5	43,628		
PROTESTANT					
1967-68	156,182	2.1	74,372		
				-0.06	-8.7
1968-69	156,093	2.3	67,867		
				3.53	8.2
1969-70	161,598	2.2	73,454		

The category "university" is not one employed in our study where the differentiation among institutions has been by degree level and extent of the graduate program. Institutions offering doctoral programs in three areas or less, for instance, are distinguished from those offering the doctorate in four or more areas. However, we can roughly approximate the term as used by the Office of Education on which the American Council study relies. The applications-to-applicants ratio varies only very slightly for private universities over the three year period -- 2.97, 3.07, 3.01 -- but when applied to the numbers of applications our "universities" report receiving, it suggests a considerably modified picture. In terms of raw numbers of applications received, 1968-69 varied only slightly from 1967-68 -- a 0.3 per cent increase; yet the actual number of applicants appears to have dropped 3.0 per cent. Between 1968-69 and 1969-70 the number of applications increased 6.7 per cent while the actual number of applicants increased 8.9 per cent. In other words, the virtually unchanged numbers of applications received in the first two years masks the fact that a drop in actual applicants had taken place, while the increase in applications the third year understates the larger increase in actual applicants.

Individual colleges, of course, are still without a basis for analyzing their own applications-to-applicants ratio. Unless they have made this kind of study among their own students they will have no way of knowing even if the "norm" for their type of institution applies to them. History, moreover, is no sure guide to the precise interpretation of the present. What may be useful to individual colleges, however, is the combination comfort and warning evident in the analyses above: a decrease in applications may not reflect a decrease in real applicants; but an increase in applications may be equally deceptive. It is a frail instrument for the admissions officer to use in gauging his progress from one year to the next or for reporting to his president on the admissions status of the institution.

Admissions and Freshman Enrollment

The rate at which freshman admissions -- applying students found acceptable to the institution -- are translated into actual freshman enrollment declined significantly for the national sample over the years covered by these data. The percentage of freshman students who, after being admitted by the institutions, actually showed up declined progressively from 66 per cent in 1965-66 to 64 per cent in 1966-67, then to 62 per cent, 61 per cent, 60 per cent in 1969-70, and was projected to stay at the 60 per cent level for the next two years.

Among institutions classified by size of enrollment, the group of institutions with the best record of translating admissions into actual enrollment is the group enrolling 500 or fewer students. In 1965-66 these institutions translated 76 per cent of the freshmen they admitted into freshman head count enrollment. That rate tumbled downward over the next few years to 73, 71, 70, and 67 per cent. For the two years of forecast data the percentage was expected to rise to 72 per cent.

The group doing the poorest job of translating freshman admissions into freshman head count enrollment is the group with the largest total enrollments, those enrolling 4000 students or more. From 62 per cent in 1965-66 to 60 per cent the following two years, to 59 per cent in 1968-69, the rate dipped to 57 per cent in 1969-70. It was forecast by these institutions to rise slightly to 58 per cent.

Those institutions enrolling between 501 and 1000 have a pattern which resembles that of the group enrolling between 2001 and 4000 students while the group enrolling 1001-2000 students has a pattern more like that of the group with the largest enrollments -- as the table below indicates.

Freshman Head Count Enrollment as a
Percentage of Freshman Admissions
1965-66 through 1971-72 by Enrollment Groups.

	1-500	501-1000	1001-2000	2001-4000	4001-up
1965-66	76	72	66	70	62
1966-67	73	68	64	67	60
1967-68	71	64	62	66	60
1968-69	70	62	61	64	59
1969-70	67	62	60	63	57
Percentage Point Drop	9	10	6	7	5
1970-71 (projected)	72	63	60	63	59
1971-72 (projected)	72	64	60	64	59

Again, the groups suffering the most marked change are the two smallest enrollment groups. As the line "Percentage Point Drop" indicates, although these two groups remain more successful in 1969-70 -- by five and ten percentage points severally -- in translating freshman admissions into freshman enrollment than the group with the largest enrollments, their grip on this translation rate has weakened by nine and ten percentage points while the group with the largest enrollments has lost only five. All groups are on stormy seas but the pitch of the waves is steepest for the smallest institutions.

Freshman Enrollment as a Percentage of Total Enrollment

In 1965-66 freshmen constituted 28.4 per cent of the total undergraduate head count enrollment in private institutions. Their percentage of the whole has declined in the intervening years to 26 per cent. While this makes for a somewhat more even spread among the undergraduate classes, it also means that there has been a decline in the segment of undergraduates which is relatively less expensive than the remaining segments. In the typical undergraduate program, freshmen cost less to educate than upperclassmen. They are frequently concentrated in larger classes as they fulfill common distribution requirements. Upper level courses in a student's major field, tutorials, independent study -- all more expensive and less easy to program for than beginning survey or distribution courses -- come later.

Although the "advantage" of a high ratio of freshmen to total undergraduate enrollment has a counterbalancing disadvantage -- especially in very small schools -- in the large number of small classes that are run at the upper level which could accommodate more students at no greater instructional cost to the college, the drop in the percentage that freshmen compose of the entire student body in very small institutions may be partly responsible for the severity of the fiscal problem there. In institutions enrolling 500 or less, freshmen in the fall of 1970 had declined to 27.3 per cent from 34 per cent in the fall of 1965 -- a drop of 6.7 percentage points. In institutions enrolling 501-1000 the drop was from 34.8 to 28.5 per cent -- a 6.3 percentage point drop. In institutions enrolling 1001-2000 the drop -- 2.3 percentage points -- was from 30.8 to 28.5 per cent. In institutions enrolling 2001-4000

it went from 26.7 to 24.5 -- a 2.2 percentage point drop -- and in institutions enrolling above 4000 it fell a scant 0.5 percentage point from 22.4 to 21.9 per cent.*

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*The reader familiar with statistics dealing with the attrition problem may be troubled at this point. If only forty per cent of the entering freshmen at a given college graduate from that college on schedule -- that is, four years after matriculation -- and only twenty per cent more graduate eventually from some college, that still leaves a dropout rate of forty per cent. Since in these circumstances it is unlikely that any of the other classes will be larger than the freshman class, how can these attrition figures be reconciled with figures that show freshman enrollment to be but a quarter -- or less -- of total undergraduate enrollment?

First of all, we asked the institutions responding to our survey to respond according to HEGIS practice. This means that only students who are enrolled in higher education for the first time directly following high school should be identified in these data as freshmen. In terms of class standing, there are many students who are not freshmen in this pristine sense, yet who at the same time are not sophomores. They are incoming transfers with less than a year of transferable credit or freshmen from the previous year who did not achieve sophomore standing. These would be included in the total undergraduate figure, but not in the freshmen figure. Our data are comparable to HEGIS data. According to Office of Education figures for all colleges and universities for fall 1970, first time degree credit students -- i.e., "freshmen" -- constitute, on a head count basis, 23.5 per cent of the total undergraduate degree-credit enrollment.

Basic to a resolution of this apparent riddle is the realization that in this study we are not following a given class of students through their academic career. What we have is an aggregation of data from individual institutions and what we are comparing is any year's freshmen with all other undergraduates. This masks a lot of in and out migration.

Many institutions seek to pick up as many transfers -- from junior colleges and elsewhere -- as they lose from their entering freshman class. The extent to which institutions, individually or collectively, achieve this goal is not visible in the figures available to us. Since our figures are for private institutions only, moreover, the migration of students between tax-supported and private institutions is lost to view.

(footnote continued)

There is, furthermore, a beguiling temptation to think of the freshman class as one of only four classes and its percentage of the whole as one of four percentages that make up the 100 per cent total. All of the students who take a fifth year -- or at least more than four years -- to earn a baccalaureate degree are hidden in the undergraduate total. While this group is unlikely to be large enough to constitute a fifth class (so that freshmen could be considered one of five, rather than one of four classes) it is large enough to "put a little English" on the phenomenon.

Because we are not following a group of specific individuals, there is a delayed reaction that is not accounted for in these data. A drop in freshman enrollment in relation to total enrollment may be due to better retention of previous classes -- as well as to incoming transfers -- or to an actual drop in entering freshmen. If the drop is an actual decrease in freshmen, this will have its effect upon subsequent classes, not on previous classes already attending the institution.

Finally, the attrition rates cited above are for all of higher education, public and private. In some states the tax-supported institution is required to accept any applicant with a high school diploma. If the institution makes no adjustment in its curricular program, it may be expected to have a higher dropout rate than the private institution which is able to do more by way of selecting students for their presumed ability to succeed in college. The attrition rate for private four-year colleges and universities as a whole is not likely to be as high as for all of higher education.

Total Enrollment -- Head Count

The proof of the pudding is in actual total enrollment. After the freshman applications, the application-to-applicants ratio, and the rate of admissions, come the important figures: the number that actually enroll -- and the number that stay enrolled.

As mentioned earlier, the rate of increase in total head count enrollment dropped steadily for private colleges and universities taken as a collective whole from 3.6 per cent in 1966-67 over 1965-66 to 2.5, 1.5, and 0.7 per cent the following years. Private institutions projected an increase in total enrollment of 1.6 per

cent in 1970-71 and 2.9 per cent in 1971-72. Putting aside the projections for a moment, it is important to note that this declining rate of increase came during a period of rising rate of increase -- at least until the fall of 1969 -- for higher education as a whole -- public and private, four-year and two-year. In a static situation these declining rates of increase in private institutions would probably have been actual decreases. Quite apart from the fact that all of higher education may be looking forward to a virtually static situation, and private higher education to a static or retrenching position, to have experienced a declining rate of increase in the midst of a rising rate for others is to have experienced something very much like an absolute decline. A declining situation is very different from a dynamic one both from a psychological and, apparently, from a cost point of view.

For some institutions it was not merely a declining rate of increase. It was a decline, period. In the State of Alabama, for instance, a two per cent increase in undergraduate enrollment in the fall of 1966 over the previous year was followed by successive decreases of 0.4, 0.3, and 8.0 per cent. (These institutions projected increases the following two years at the rates of 1.5 and 3.9 per cent.) Institutions in the State of Iowa, after a 5.9 per cent increase ran decreases of 6.5, 1.4, and 2.4 per cent -- with projected increases of 2.3 and 4.0 per cent attached. Ignoring the projections, this amounts to a total net loss in Iowa in undergraduate head count enrollment of 4.8 per cent since the fall of 1965. In Maryland and Wisconsin, in addition to Iowa and Alabama -- all states with at least 8 institutions reporting -- private institutions suffered net losses in enrollment in 1969-70 over 1965-66, and in Kentucky, Louisiana, Missouri, and Nebraska, private institutions are below their fall 1966 enrollments. These absolute declines, together with some declines in rates of increase as well as rises and falls, are set forth in the following table. Only states with at least five institutions reporting undergraduate head count enrollment are reported in this table.

Percentage of Change from Year to Year in
Total Undergraduate Head Count Enrollment by States

	1965-66/66-67	1966-67/67-68	1967-68/68-69	1968-69/69-70	1969-70/70-71 (projected)	1970-71/71-7 (projected)
Alabama	2.0	-0.4	-0.3	-8.0	1.5	3.9
California	3.0	3.4	2.7	5.2	4.0	3.9
Connecticut	12.4	6.3	1.1	0.2	1.8	3.4
Florida	-5.1	13.7	6.9	4.9	2.4	2.4
Georgia	5.9	2.3	-0.3	-0.1	4.5	4.3
Illinois	4.4	1.3	0.5	1.3	-1.0	1.9
Indiana	1.4	3.0	1.7	0.6	1.3	3.1
Iowa	5.9	-6.5	-1.4	-2.4	2.3	4.0
Kansas	8.4	3.2	0.1	-1.4	-1.5	5.3
Kentucky	7.9	-0.9	-3.0	-0.9	5.5	3.6
Louisiana	6.0	1.8	-2.9	-3.6	0.7	3.2
Maine	2.3	7.4	3.7	4.4	3.1	2.9
Maryland	1.0	0.3	-0.7	-3.0	0.9	0.9
Massachusetts	2.1	2.5	0.3	3.6	2.7	1.4
Michigan	1.3	1.3	-0.2	0.0	0.7	2.9
Minnesota	2.7	4.0	2.4	1.2	0.8	3.3

	1965-66/66-67	1966-67/67-68	1967-68/68-69	1968-69/69-70	1969-70/70-71 (projected)	1970-71/71-7 (projected)
Missouri	2.8	1.9	-1.6	-0.9	-1.4	2.8
Nebraska	4.8	-0.1	1.7	-5.0	1.2	2.2
New Jersey	4.0	5.5	7.7	1.5	2.1	2.2
New York	4.8	4.4	2.4	2.2	0.9	2.1
North Carolina	6.2	4.2	2.6	-0.1	-1.1	6.7
Ohio	5.0	2.2	1.2	-0.5	1.4	2.8
Oregon	5.5	1.9	3.7	2.6	0.3	3.9
Pennsylvania	2.3	2.9	0.6	1.3	1.2	2.0
South Carolina	-0.9	8.0	6.8	0.6	1.2	2.4
South Dakota	5.1	-3.2	2.3	0.2	2.6	5.7
Tennessee	5.1	3.6	1.5	-1.2	3.3	4.7
Texas	4.1	-1.7	0.1	2.9	1.8	3.3
Virginia	5.9	3.4	-0.2	-0.2	0.2	1.7
Washington	-0.5	1.5	-3.4	1.7	1.3	2.5
West Virginia	2.4	4.1	3.9	-3.8	-0.4	1.9
Wisconsin	3.5	-0.1	-1.6	-3.0	1.9	2.5
District of Columbia	3.2	1.5	1.1	0.5	3.1	2.0

The regional picture softens the starker outline of differences among states but it still reflects these differences and in summary form it reveals that the enrollment scene is not identical around the country. While no region ends up, as four individual states do, with a net loss in undergraduate head count enrollment in 1969-70 over 1965-66, four of the regions reveal a stunted and declining enrollment growth. These are the regions that run straight through the geographic middle of the country. What makes this all the more striking is the fact that all four of these regions made large initial increases in 1966-67 over 1965-66. Like the seed that fell on stony soil it sprang up quickly but soon withered. The following table presents the percentage of change between years from 1965-66 through 1971-72. The percentages are not cumulative.

Total Undergraduate Head Count
Enrollment Showing Percentage of Change
Between Years by Region

	1965-66/ 1966-67	1966-67/ 1967-68	1967-68/ 1968-69	1968-69/ 1969-70	1969-70/ 1970-71 (projected)	1970-71/ 1971-72 (projected)
Nation	3.6	2.5	1.5	0.7	1.6	2.9
Pacific	2.4	2.6	1.1	3.8	2.7	3.5
Mountain	4.7	5.6	8.3	-0.2	5.0	2.7
W. So. Central	3.8	0.5	-0.3	-0.4	1.7	3.6
E. So. Central	5.1	0.8	0.8	-2.2	3.4	4.1
W. No. Central	5.0	-1.0	-0.1	-1.3	0.7	3.8
E. No. Central	3.4	1.7	0.5	-0.2	0.8	2.7
So. Atlantic	2.0	5.0	2.6	0.5	1.4	2.8
Middle Atlantic	3.8	4.0	2.5	1.8	1.2	2.1
New England	2.7	3.1	1.2	3.7	2.4	1.7

Total Enrollment -- Full-Time Equivalent

Full-time equivalent enrollment is a somewhat imprecise category. Institutions were reminded to use for our survey the definitions employed when supplying information for the Office of Education's Higher Education General Information Survey, but the method of arriving at a "full-time equivalent" may well have varied from one campus to another. Our data simply reflect the information supplied by each institution. By whatever method calculated, it is, of course, a device to get behind head count figures made up of full- and part-time students to see what these figures would be if all part-time students could be regrouped to resemble full-time students. From an educational point of view it is important to know the head count figure -- to know how many actual persons are being accommodated in higher education. From a financial point of view, full-time equivalent figures are generally more useful.

The percentage relation between subsequent years of full-time equivalent data is similar -- and sometimes very nearly equal -- to head count relationships. The comparisons for 481 institutions are listed below.

	Undergraduate Head Count Enrollment Percentage of Change (Increase) between Years	Undergraduate Full-Time Equivalent Enrollment Percentage of Change (Increase) between Years
1965-66/1966-67	3.6	4.9
1966-67/1967-68	2.5	2.7
1967-68/1968-69	1.5	2.1
1968-69/1969-70	0.7	0.8
1969-70/1970-71	1.6 (projected)	1.5 (projected)
1970-71/1971-72	2.9 (projected)	2.7 (projected)

The best year -- the year of greatest increase -- for each enrollment group in our study -- and thus for all institutions combined -- is the earliest year for which we have data to compare with the previous year. In the fall of 1966, full-time equivalent rose by

4.9 per cent for all institutions combined. The smallest gain was 4.2 per cent for institutions in the 2001-4000 enrollment group and the largest gain -- seven per cent -- was netted by the smallest enrollment group.

The following year, 1967, the positions flipped. The enrollment group with the lowest rate of increase the previous year became the group with the highest increase simply by being the group whose percentage slipped the least. The group with the highest percentage of increase the previous year plummetted to the lowest increase the following year, dropping from seven per cent to 0.3 per cent.

One year following, this smallest enrollment group dropped still further to an actual net decrease of 1.3 per cent in full-time equivalent enrollment. Changes of this magnitude, even if alleviated by later increases, have a violent impact on both the educational program and the economy of the small institution. As crash dieters have found, alternate quick gains and swift losses are far less healthy than weight stability. The problem is that this is good advice for the affluent man who -- if he has the will -- has considerable control over his increases or decreases, but poor advice for the impoverished who must take his feast or famine as these present themselves. Very small institutions, continually on the hunt for enough students to support a viable academic program, must accept all that a good hunt produces one year to make up for the losses of a previous -- or subsequent -- year.

For all institutions combined, the rate of increase in full-time equivalent enrollment has been a rapidly declining one. From 4.9 per cent in 1966 it dropped to 2.7 per cent in 1967. This was followed by further drops to 2.1 per cent in 1968 and to 0.8 per cent in 1969. A recovery to 1.5 per cent was projected for 1970-71 and a 2.7 per cent increase was forecast for 1971-72. These figures are set forth in the table which follows.

Full Time Equivalent Enrollment
Numbers and Percentages of Change for Each Year
Between 1965-66 and 1971-72
by Enrollment Groups

	1-500 (N=28)	501-1000 (N=167)	1001-2000 (N=180)	2001-4000 (N=58)	4001-UP (N=48)	481 Institutions Combined
1965-66	8721	109847	210608	119474	209674	658324
Percentage of Change	7.0	4.7	5.3	4.2	4.7	4.9
1966-67	9330	115002	221859	124496	219617	690304
Percentage of Change	0.3	2.8	1.4	3.8	3.3	2.7
1967-68	9359	118198	224965	129204	226972	708698
Percentage of Change	-1.3	0.9	1.5	2.3	3.3	2.1
1968-69	9240	119217	228428	132171	234435	723491
Percentage of Change	1.4	-1.0	0.5	2.9	0.9	0.8
1969-70	9365	118022	229516	135988	236625	729516
Percentage of Change (anticipated)	7.9	1.5	1.8	1.5	1.0	1.5
1970-71 (anticipated)	10107	119734	233744	138066	238879	740530
Percentage of Change (anticipated)	11.7	4.5	3.1	2.2	1.3	2.7
1971-72 (anticipated)	11286	125102	240921	141084	242077	760470

The rate of change in full-time equivalent undergraduate enrollment examined by degree levels shows that for three of the degree level groups -- baccalaureate, masters in three areas or less, doctorate in three areas or less -- the increase in 1966-67 over 1965-66 was the largest increase for any of the years included in our study. The greatest increase for the group of institutions offering the masters degree in four areas or more came one year later, while the greatest increase for the group of institutions offering the doctorate in four or more areas came one year later still.

For the baccalaureate institutions there has been a progressively lower rate of increase over the years of actual data covered by our initial questionnaire until in 1969-70 there was actually a slight net decrease in full-time equivalent enrollment. The following two years -- 1970-71 and 1971-72 -- were forecast to be years of quick recovery, achieving a rate of increase of 3.5 per cent.

The enrollment experience of the group of institutions offering the masters degree in three areas or less roughly parallels that of the baccalaureate institutions except that 1969-70, instead of being a year with a net decrease, was actually a year with nearly a two per cent increase in enrollment.

For the institutions offering the masters degree in four or more areas 1969-70 also showed a little ski jump upturn. For the doctoral granting institutions, however, it was a drop in the rate of increase -- the first such drop for those granting the doctorate in four or more areas.

These figures, together with the expectations these institutions had for the following two years, are shown on the following table.

Full Time Equivalent Enrollment
Numbers and Percentage of Change for Each Year
Between 1965-66 and 1971-72
by Degree Levels

	4-5 Year Baccalaureate (N=305)	Masters in 3 Areas or Less (N=82)	Masters in 4 Areas or More (N=46)	Ph.D in 3 Areas or Less (N=13)	Ph. D in 4 Areas or More (N=28)
1965-66	276801	120956	86475	81983	124983
Percentage of Change	5.5	5.7	2.5	8.7	3.1
1966-67	292099	127838	88602	34759	128832
Percentage of Change	2.2	3.2	2.9	1.8	3.4
1967-68	298625	131982	91136	35394	133175
Percentage of Change	1.9	1.7	0.3	2.9	3.6
1968-69	304152	134166	91419	36423	137957
Percentage of Change	-0.3	1.9	1.7	1.1	1.3
1969-70	303321	136707	92945	36817	139798
Percentage of Change (anticipated)	2.0	2.3	0.4	1.1	0.7
1970-71 (anticipated)	309386	139821	93343	37228	140783
Percentage of Change (anticipated)	3.5	2.6	1.7	2.8	1.1
1971-72 (anticipated)	320298	143442	94886	38278	142391

The full-time undergraduate enrollment examined by geographical regions reveals uneven patterns. The four central regions and the South Atlantic region share a pattern that shows the percentage of increase in 1966-67 over 1965-66 to be the highest and the percentage of change -- decrease in some instances -- to be lowest in 1969-70 over 1968-69, but the intervening two years were not, for all five regions, a uniform progression from higher to lower.

The Middle Atlantic region's pattern closely resembles the pattern of these five, but the Pacific and New England areas which had their highest rate of increase in 1969-70 over 1968-69 are distinctly different from the others. The eight institutions comprising the Mountain region again present a wildly careening pattern of ups and downs which hints at the patterns for individual institutions or other very small groups of institutions. Larger groups have a smoothing effect on the statistical pattern. With large numbers of institutions even major changes appear mild, rather like riding a roller coaster with the brakes on.

The full-time equivalent enrollment pattern by geographical regions is shown in the following table. For the sake of simplicity only the 1965-66 and 1971-72 (anticipated) enrollments are shown together with the intervening percentages of changes from one year to the next. The percentages are not cumulative.

Full Time Equivalent Enrollment by Geographical Regions Showing Actual Numbers for 1965-66 Projected Numbers for 1971-72, and Percentage of Change Between Each Intervening Year

	Pacific (N=39)	Mountain (N=8)	West So. Central (N=26)	East So. Central (N=31)	West. No. Central (N=75)	East No. Central (N=103)	South Atlantic (N=71)	Mid Atlantic (N=83)	New England (N=35)
1965-66	46733	11217	36033	32750	78532	137877	93028	151944	48475
1966-67	3.2	6.3	4.5	4.2	5.8	5.3	5.0	4.7	2.2
1967-68	2.5	2.9	1.0	2.0	-1.0	2.2	3.4	5.1	2.8
1968-69	1.9	11.7	1.5	0.3	0.1	0.9	3.7	3.0	0.7
1969-70	3.5	- 0.1	0.2	-1.4	-1.4	0.0	0.8	1.7	3.2
1970-71 (anticipated)	2.9	2.9	2.7	3.5	0.5	1.6	0.9	0.9	1.7
1971-72 (anticipated)	2.8	1.6	3.7	3.9	3.7	2.1	3.0	1.9	2.1
1971-72 (anticipated)	55115	14313	41200	37040	84580	155399	109708	180035	54955

Prediction and Actuality

One year after our initial solicitation of data we wrote again to private colleges and universities asking for updated information. These follow-up data enable us to see how the predictions made a year earlier actually held up when the last student arrived and the final nose was counted.

While many individual institutions -- it deserves reiteration -- defy being taken captive by statistical averages, on the average the private institution failed to meet its projections.

There were some happy exceptions even among averages. For example, three regions met -- East North Central -- or exceeded -- Pacific and New England -- their forecast head count enrollment for 1970-71. All others fell short.

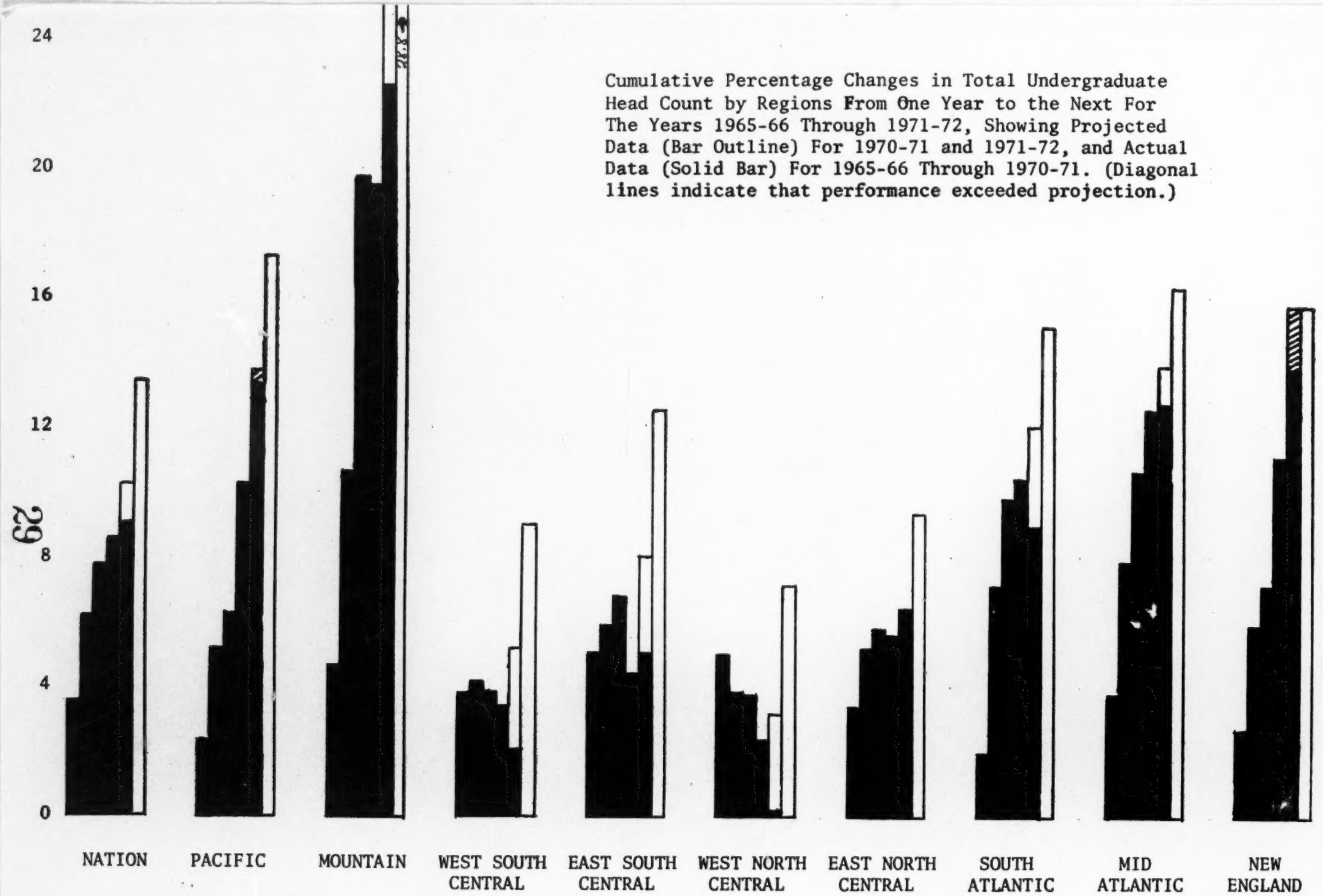
In all regions the forecast had been for increased enrollment over the previous year. In fact, in every case save one -- West North Central -- 1970-71 was forecast to bring the highest enrollment since the base year, 1965-66. While, in five of the nine regions, 1970-71 did prove to be the highest enrollment to that point in time, in three regions it was the lowest since 1966-67 and in one -- West North Central -- it very nearly returned to the 1965-66 level.

The following bar graph presents, for the nation as a whole and separately for the nine geographical regions, the cumulative percentage increase (or decrease) in total undergraduate head count enrollment. Enrollment in 1965-66 is taken as a base year and is represented as the zero line. The bars which follow represent successive annual cumulative percentage changes in total undergraduate enrollment from 1965-66 through (projected) 1971-72.

The heavily shaded bars represent actual data. The unshaded bars (or portions of bars) represent projected -- i.e., hoped-for -- data. The area marked by diagonal lines -- seen only in the Pacific and New England regions -- indicates that actuality exceeded forecast.

What is of particular interest in this graph is the difference between forecast and actuality for 1970-71, which the bar second from the right for each group reveals, and the commentary which it offers on the forecast for 1971-72.

Cumulative Percentage Changes in Total Undergraduate Head Count by Regions From One Year to the Next For The Years 1965-66 Through 1971-72, Showing Projected Data (Bar Outline) For 1970-71 and 1971-72, and Actual Data (Solid Bar) For 1965-66 Through 1970-71. (Diagonal lines indicate that performance exceeded projection.)



The percentage of change in undergraduate head count enrollment by states has already been presented in the table on pages 17 and 18. The following table repeats the projected increases for 1970-71 and for 1971-72 which are presented in that table and adds, for those states for which we have comparable data, the actual increase -- or decrease -- for 1970-71 over 1969-70.

As will be evident from an inspection of the figures, actual enrollment exceeded predictions in nine states and matched it in one. For the other two-thirds, actual enrollments were lower than anticipated. In one state (Virginia) enrollment exceeded prediction by 8.1 per cent, and in Washington by 3.6 per cent. These were more than offset by states where enrollment reality fell short of projection by 9.6 per cent (Maryland), 8.4 per cent (Kentucky), 7.6 per cent (Florida), 6.5 per cent (Kansas), 5.6 per cent (Nebraska), and 5.1 per cent (South Dakota).

These figures are a sobering commentary on the projections for 1971-72 which were made before institutions knew the actual figures for 1970-71. That commentary is reinforced by the preliminary figures recently released by the Carnegie Commission on Higher Education which show that undergraduate enrollment decreased in 1971-72 by 1.5 per cent in private universities while holding for no gain in private four-year colleges.

Percentage of Change
in Undergraduate Head Count Enrollment

	1969-70/70-71 (projected)	1969-70/70-71 (actual)	1970-71/71-72 (projected)
California	4.0	2.5	3.9
Florida	2.4	-5.2	2.4
Georgia	4.5	0.9	4.3
Illinois	-1.0	-2.8	1.9
Indiana	1.3	-0.8	3.1
Iowa	2.3	-1.5	4.0
Kansas	-1.5	-8.0	5.3
Kentucky	5.5	-2.9	3.6

	1969-70/70-71 (projected)	1969-70/70-71 (actual)	1970-71/71-72 (projected)
Louisiana	0.7	-0.4	3.2
Maine	3.1	0.9	2.9
Maryland	0.9	-8.7	0.9
Michigan	0.7	2.9	2.9
Minnesota	0.8	0.8	3.3
Missouri	-1.4	-1.0	2.8
Nebraska	1.2	-4.4	2.2
New Jersey	2.1	2.5	2.2
New York	0.9	0.1	2.1
North Carolina	-1.1	-0.4	6.7
Ohio	1.4	3.4	2.8
Oregon	0.3	1.5	3.9
Pennsylvania	1.2	-0.2	2.0
South Carolina	1.2	-0.6	2.4
South Dakota	2.6	-2.5	5.7
Tennessee	3.3	0.9	4.7
Texas	1.8	0.0	3.3
Virginia	0.2	8.3	1.7
Washington	1.3	4.9	2.5
West Virginia	-0.4	-3.0	1.9
Wisconsin	1.9	0.2	2.5
District of Columbia	3.1	-1.4	2.0

For the institutions in our study taken as a national whole there has been continuous growth in undergraduate head count enrollment over the years covered in this study. With each successive year, however, the increase grows less. As for a football team moving down the field, it becomes tougher and tougher to grind out yardage. If it is this tough in an era of generally expanding enrollments, how tough will it become when the college age cohort begins to creep down? Public institutions, to justify their heavy expenditures in plant and program, will begin making goal line stands well past mid field.

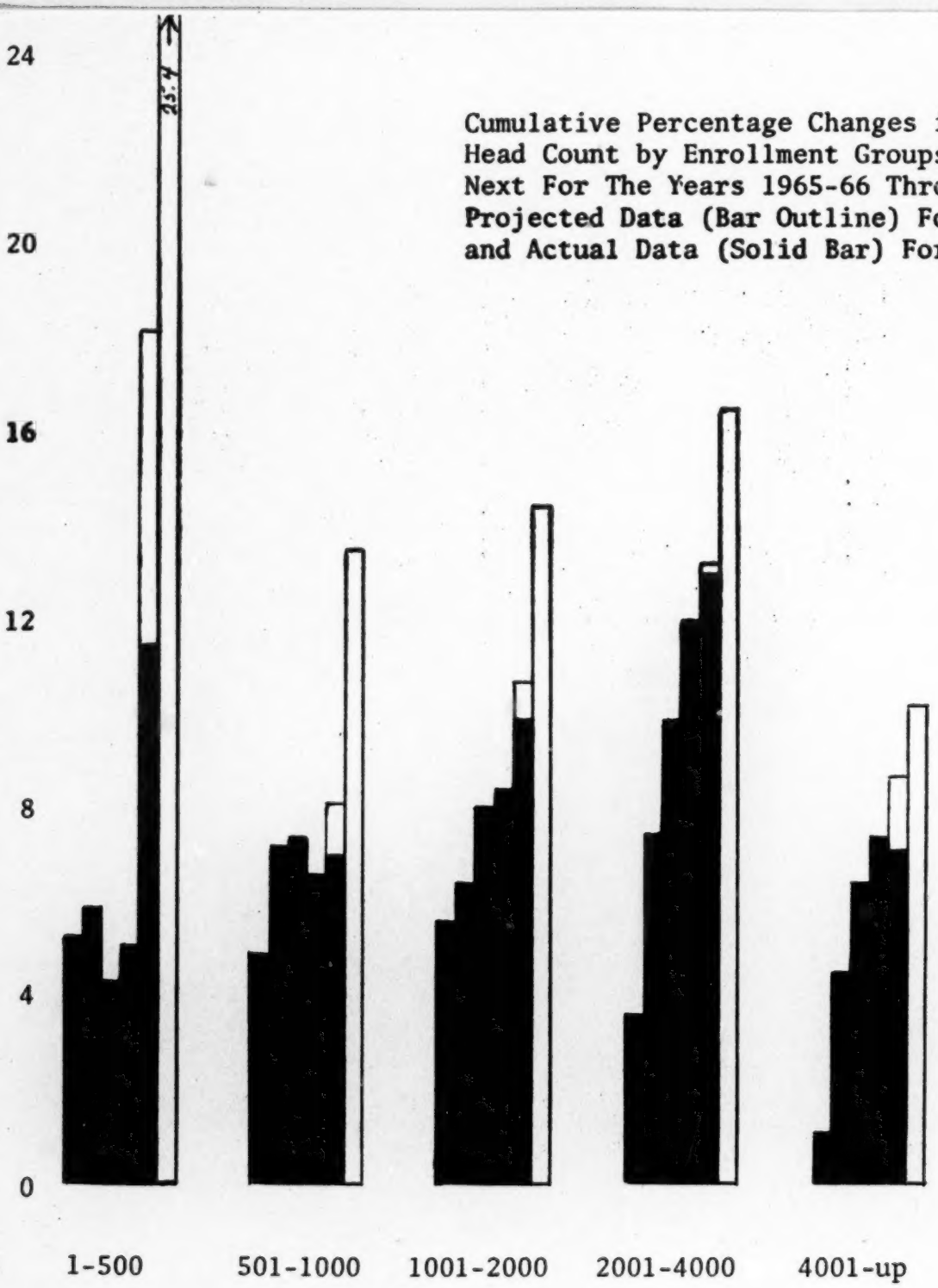
The following two graphs depict cumulative percentage changes in undergraduate head count enrollment by degree level and by enrollment size. It is striking to note, with reference to the degree level analysis, that institutions without extensive graduate commitments did better than those engaged more substantially in graduate work at either the masters or doctorate level.

Baccalaureate institutions improved their position over the previous year but did not establish a new high. Institutions offering the masters degree in three areas or less established a new high in head count enrollment, while institutions offering the doctorate in three areas or less not only established a new high but exceeded their predictions.

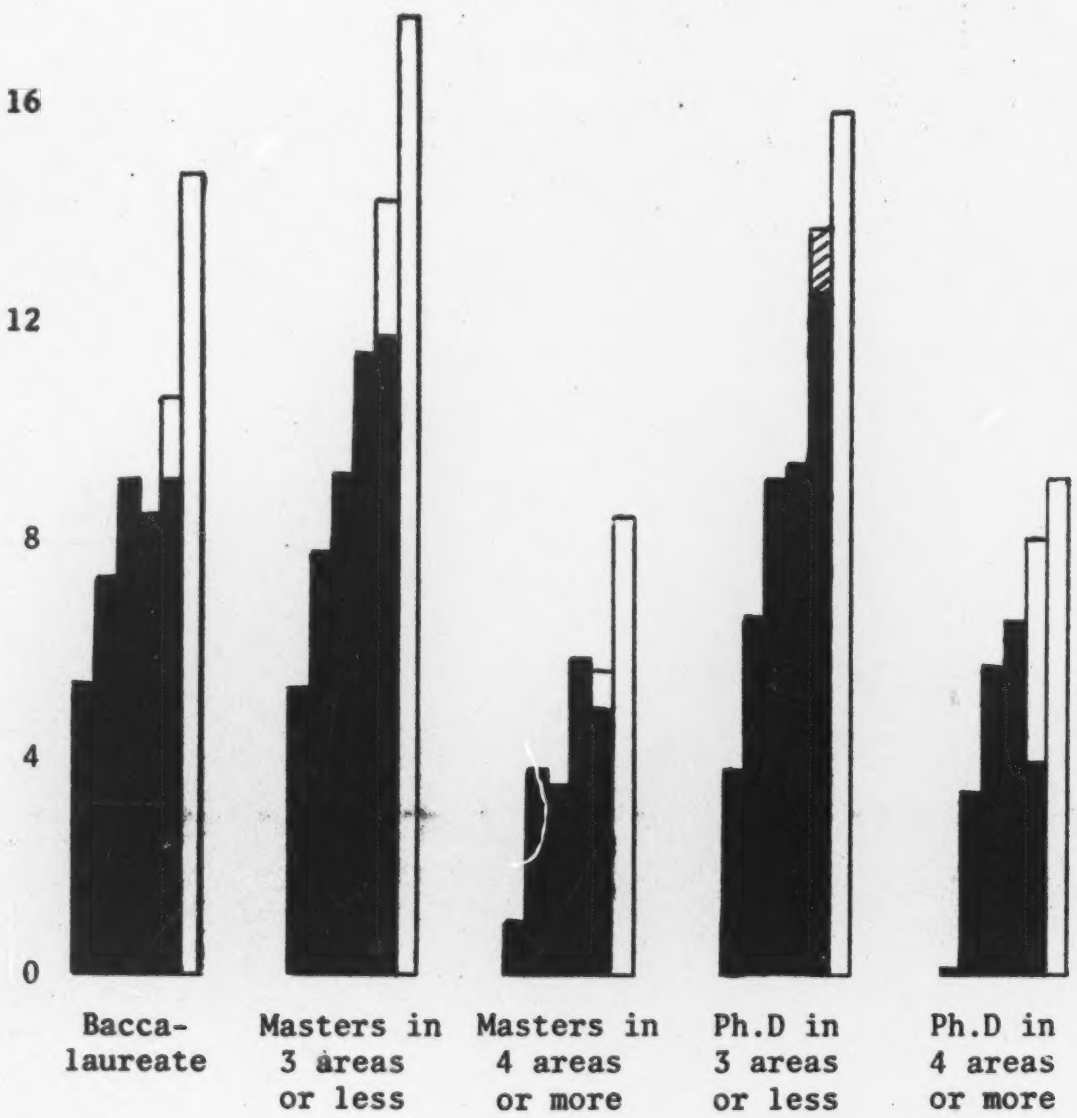
Those offering the masters degree in four areas or more as well as those offering the doctorate in four areas or more not only failed to meet their predictions but actually declined over the previous year. For the doctoral granting institutions this decrease in undergraduate enrollment was accompanied by a substantial -- eleven per cent -- increase in graduate head count enrollment. At a time when federal support for graduate programs is at a low ebb, this decrease in undergraduate enrollment coupled with an increase in graduate enrollment will have adverse effects on the fiscal status of most of these institutions.

On the enrollment side, only institutions enrolling more than 4000 actually declined in undergraduate head count enrollment. All other groups increased. The group of institutions enrolling between 2001-4000 came closest to meeting its (modest) predicted increase. Paradoxically, although the group of institutions enrolling 500 or less fell farthest short of meeting its anticipated increase, this group nevertheless had the largest increase over the preceeding year. Their reach far exceeded their grasp, but exceptional effort must have been put forth to attain the dramatic increase actually achieved.

Cumulative Percentage Changes in Total Undergraduate Head Count by Enrollment Groups From One Year to the Next For The Years 1965-66 Through 1971-72, Showing Projected Data (Bar Outline) For 1970-71 and 1971-72, and Actual Data (Solid Bar) For 1965-66 Through 1970-71.

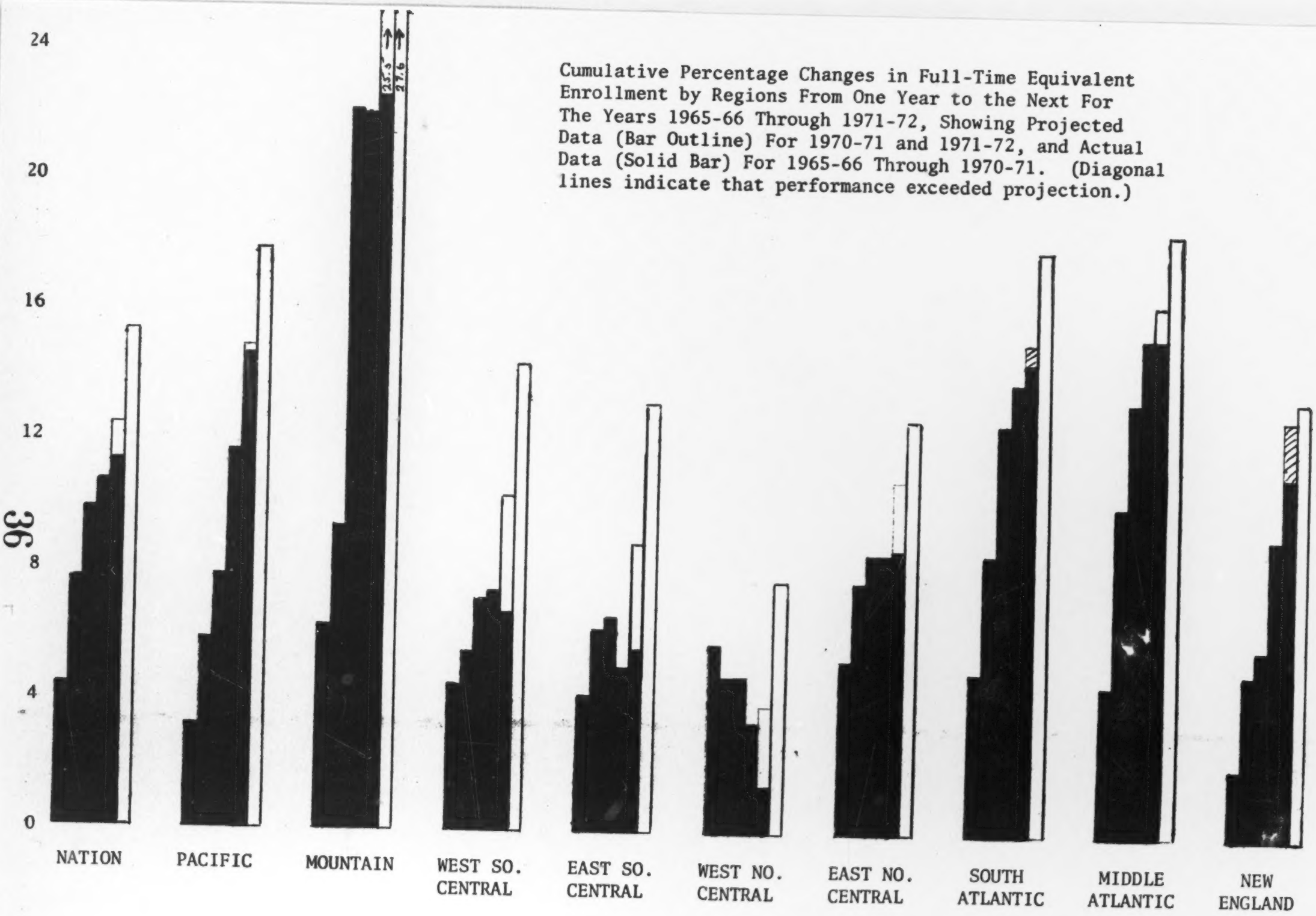


Cumulative Percentage Changes in Total Undergraduate Head Count by Degree Levels From One Year to the Next For The Years 1965-66 Through 1971-72, Showing Projected Data (Bar Outline) For 1970-71 and 1971-72, and Actual Data (Solid Bar) For 1965-66 Through 1970-71. (Diagonal lines indicate that performance exceeded projection.)

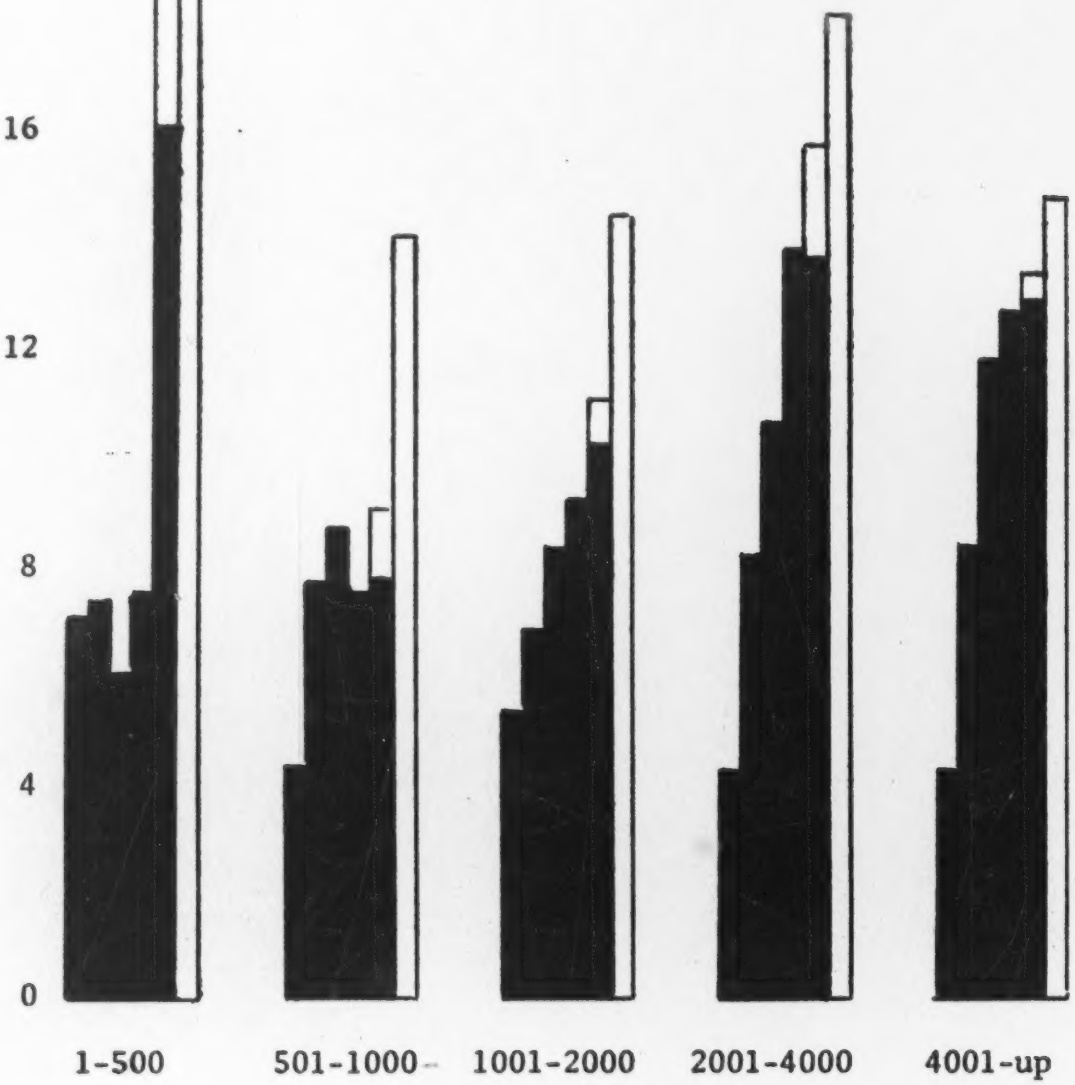


The picture is not radically altered when one turns from undergraduate head count to full-time equivalent enrollment as the following graphs show. By regions, the most important differences are West South Central -- which is doing better on a full-time equivalent basis than on a head count basis -- and South Atlantic, which is doing worse. In the enrollment groups, only the two largest show a difference between head count and full-time equivalent performance. By degree level groupings, only the group offering the masters degree in three areas or less performed noticeably different in 1970-71 by full-time equivalent from the way its performance shows up by head count.

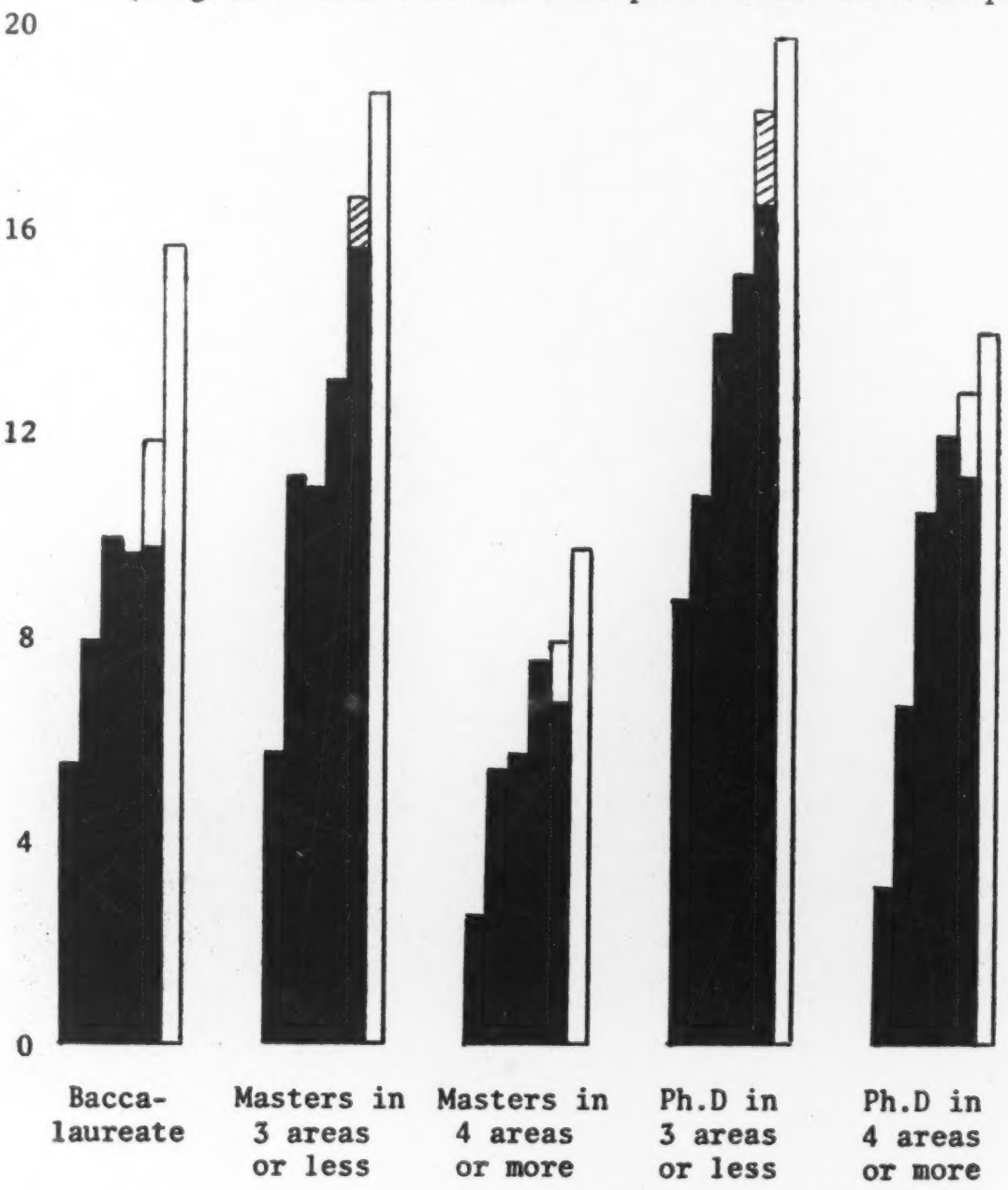
Cumulative Percentage Changes in Full-Time Equivalent Enrollment by Regions From One Year to the Next For The Years 1965-66 Through 1971-72, Showing Projected Data (Bar Outline) For 1970-71 and 1971-72, and Actual Data (Solid Bar) For 1965-66 Through 1970-71. (Diagonal lines indicate that performance exceeded projection.)



Cumulative Percentage Changes in Undergraduate Full-Time Equivalent by Enrollment Groups From One Year to the Next For The Years 1965-66 Through 1971-72, Showing Projected Data (Bar Outline) For 1970-71 and 1971-72, and Actual Data (Solid Bar) For 1965-66 Through 1970-71.



Cumulative Percentage Changes in Undergraduate Full-Time Equivalent by Degree Levels From One Year to the Next For the Years 1965-66 Through 1971-72, Showing Projected Data (Bar Outline) For 1970-71 and 1971-72, and Actual Data (Solid Bar) For 1965-66 Through 1970-71. (Diagonal lines indicate that performance exceeded projection.)



Graduate Enrollment

In the years covered by our study the big increase in graduate enrollment came in 1966. The graduate head count increase over the previous year was 6.9 per cent. The total full-time equivalent graduate count rose 7.5 per cent. This was in the same year that freshman head count enrollment decreased 2.3 per cent and total undergraduate head count increased 3.6 per cent.

It is well for private higher education that this increase in graduate students did not sustain itself. It did continue to increase, however, at rates considerably higher than undergraduate increases, for the following three years. Graduate head count enrollment increased by 4.6, 3.2, and 5.0 per cent while full-time equivalent graduates progressed erratically at rates of 5.4, 3.1, and 4.8. Then, suddenly, both rates appeared to our respondents to be headed for a decline: graduate head count to a 2.7 per cent rate of increase and full-time equivalent to 1.7 per cent. In the following year, 1971-72, these rates were projected to make a recovery of some lost ground with rates of increase of 3.1 and 3.6 per cent respectively. If the projections proved accurate this would mean a cumulative increase of 29 per cent full-time equivalent graduates compared to a cumulative increase of 15.5 per cent full-time equivalent undergraduates over the same time period.

Institutions in our largest enrollment category -- those enrolling more than 4000 students -- account for as much as seven eighths of all graduate students enrolled in private higher education, but the cumulative increase over these seven years of data for full-time equivalent graduate students in these institutions is only 23 (22.8) per cent. The really large increases -- 71.7 per cent -- were made by a score of institutions in the two to four thousand enrollment range and some two dozen institutions in the one to two thousand student range -- 76.2 per cent.

In other words, although they account for only one eighth of the graduate students -- largely, but not entirely, at the masters degree level -- their cumulative rate of increase was so high that the rate of increase for all private institutions combined -- 29 per cent -- is higher than the rate of increase for those institutions enrolling seven eighths of the graduate students -- 23 per cent.

Full-time equivalent graduate enrollment as a percentage of total full-time equivalent enrollment -- on a per reporting institution basis -- rose slightly in each of the years covered by our study from 29.7 per cent in 1965-66 to 31.9 per cent in 1969-70. It was projected to remain steady for the following two years. When the rate of increase in graduate students remains higher than the

rate of increase in undergraduate students, then the proportion of graduate students to total enrollment will continue to rise. This appears to be what is happening. It will have adverse implications for the financial picture of most institutions. Graduate head count enrollment that was projected to increase in 1970-71 at a modest 2.7 per cent, accompanying a 1.6 per cent undergraduate head count enrollment increase, actually increased 6.2 per cent while undergraduate enrollment fell off to a 0.5 per cent increase.

Concluding Comments

Rarely does anyone attempt to describe a college or university apart from the students who study there. Many -- and that includes more than students -- say that students are the college. Every institution of higher learning takes students very seriously. They are the name of the game. For educational purposes, therefore, enrollments -- and the study of enrollment patterns -- are important.

Enrollments are also important fiscally. Buildings are built, programs are developed, faculties are hired, fixed expenditures are committed to students, both those already at the institution and those that are expected. An institution that builds plant and program for a student body that never reaches the expected size, or that rises and then falls, is apt to be in fiscal trouble and its administrators may have some explaining to do. This is not substantially different in tax-supported institutions from what it is in privately supported ones.

If neither the percentage of college age students actually attending college nor the length of time they stay enrolled increases, while the college age cohort -- which stands as proxy for post-secondary enrollments -- declines to a rate of increase near zero, tax-supported institutions will be scrabbling for students along with privately supported ones in order to justify their expanded plants and programs. This will not make the admissions task of privately supported institutions any easier.

All institutions are concerned with enrollments for both educational and fiscal reasons; but those that are dependent upon tuition and fee income for forty per cent of their total operating budget are doubly concerned.

In private institutions, not only are expenditure commitments made in the expectation that enough students will arrive to vindicate those commitments, but the students are expected to bring with

them a substantial portion of the income necessary to sustain the commitments. In economic terms, tax-supported and privately supported institutions that make commitments beyond the number of arriving students are not different from one another. In either case, money is expended without yielding the expected benefit. The effect of miscalculation, however, is more immediately and directly felt by the privately supported institution where income as well as expenditure is at stake.

Moreover, since private institutions are more likely than tax-supported ones to be substantially residential in nature, a lower number of students than was expected adversely affects the income and expenditure pattern for auxiliary enterprises. In all enrollment groups in our study except the group of institutions enrolling more than four thousand students, auxiliary enterprises -- especially residence halls -- not only pay for themselves but actually generate net income which makes it possible for a college to provide, say, more student aid. In relation to auxiliary enterprises, a resident student is an asset. If he does not show up he is not merely a missing asset, he is a deficit. Debt service payments must be met on the space he would have occupied whether he shows or not.

If the enrollment picture is to improve in private colleges and universities, many will need to be more aggressive in their pursuit of potential students and in their retention of those who actually matriculate. To do these things they will need better data than many of them presently possess and better studies of where their students come from, why they come, and why they leave.

The pursuit and retention of students must begin with the clear articulation of an academic program that can meet the competition in meaning, purpose, and relevance. It continues when this message is carried by an admissions office which understands that its role is not counseling, first of all, but admission. It is carried further by a faculty which understands that a useful test of the smallness which it applauds is the rate of retention it is able to attain through the application of intimate concern.

The data which some institutions maintain in this critical area are sadly deficient. To judge by their ability to respond to our request for data, some institutions are overlooking areas where the need for precise data is important. To be without adequate data in an area as crucial as freshman admissions -- the replenishment of the student body in both quality and quantity -- is to treat casually an area of vital concern to the institution.

Even small miscalculations of what to expect of the future can have major effects on a small college. The unrealistic predictions

made by a number of institutions in our study are partly the result of an inadequate history of data, insufficiently analyzed. Unrealistic predictions lead to financial commitments which aggravate the fiscal imbalance.

More institutions need better studies of their students. They need to know where they come from geographically, economically, academically, and generally. They need to have studies that tell them, for example, that although the same amount of energy invested in two places elicits a comparable number of requests for admission, it produces two very different patterns of actual enrollment. They need to know a great deal more both about the students who do come and the ones who do not. They need to know how many applications their own students are filing -- and have filed in the past.

In years when a smaller number of applicants are generating a larger number of applications, each institution may expect to be affected by the phenomenon by actually succeeding in enrolling a smaller percentage of applicants than in years when more applicants generate fewer applications for admission. This is the statistical application of the phenomenon.

For the individual institution, however, each application does represent a real applicant. Whether it takes its statistical share of these students or a larger -- or smaller -- share will depend upon how skillfully these applicants are handled. When the fishing is poor, a few fish may tug on many lines. At times like these, the skill of the angler becomes critical.

If the enrollment picture in private colleges and universities is to improve, finally, more will have to be done within a state to bring about a more effective coordination of tax-supported and private institutions -- including some reduction in the widening gap between the two types of institutions in the charges paid directly by the student through tuition and fees.

One of the reasons most frequently mentioned for the rising cost of higher education -- the marked increase in college attendance -- has not had anything like the effect on private institutions that it has had on public ones. Private higher education's financial stress is largely the result of other factors. Perversely, it is often the lack of an increase in enrollment -- or in fact an actual decrease in enrollment -- that has had the greater effect on private higher education. Some of this decrease, in some areas, appears to be the result of a broad and rapid expansion of the community college operation undertaken with insufficient regard for existing institutions. Both time and money -- especially in the comparison between the student charges employed by both types of institutions -- have played

a part.

The fiscal implications of enrollment are alluded to in the foregoing pages, but the theme is not belabored. Clearly, however, the relationship is not incidental. If private higher education is to survive financially it must also survive in enrollment. To accomplish this, both internal and external factors need to be improved. Private colleges and universities need good data, better studies, aggressive admissions practices, and -- above all -- attractive academic programs. They also need external help if they are to be successful in their bid for students. Neither the institutions nor their students can continue to leap ever-rising financial hurdles.